



## Elastofibroma Dorsi: CT Appearance

Rivka Zissin MD and Myra Shapiro-Feinberg MD

Department of Diagnostic Imaging, Meir Hospital (Sapir Medical Center), Kfar Saba [affiliated to Sackler Faculty of Medicine, Tel Aviv University], Israel

IMAJ 2001;3:780

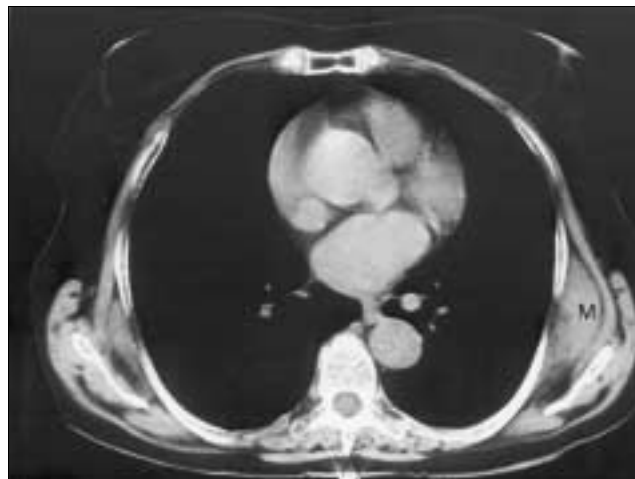
A 69 year old woman, born in Iraq, with a history of five surgical procedures for resection of hepatic echinococcal cyst was referred for thoraco-abdominal computerized tomography because of right upper abdominal pain. On CT, a well-defined soft tissue mass was incidentally found between the left bony thoracic cage medially and the scapula and the serratus anterior muscle laterally. The mass abutted the adjacent ribs and had foci of fatty density within its soft tissue attenuation. A similar smaller lesion was found in the same region on the right side. The presumptive pre-operative diagnosis was elastofibroma dorsi, which was further confirmed on a subsequent excision of the mass.

Elastofibroma dorsi is a rare benign lesion of the chest wall. It is regarded as a pseudotumor resulting from the chronic mechanical friction between the tip of the scapula and the chest wall, which explains its typical location [1]. Elastofibroma dorsi has a reported incidence of 2% in the elderly population as revealed by CT, but is found in autopsy series in 11.2% of men and in 24.4% of women [2,3]. The lesions are often asymptomatic and

are incidentally discovered on imaging. However, patients may present with a subscapular mass, sometimes painful, due to brachial plexus impingement, or with shoulder disability such as the snapping scapula syndrome [1,3,4]. Bilateral occurrence is common, usually being asymmetric, and supports the diagnosis. On pathology, the mass consists of a mixture of collagen and elastic fibers, scattered fibroblasts, interstitial mucoid material and islands of mature fat cells [2]. The imaging findings reflect the histologic pattern, and awareness of the characteristic features aids in establishing the correct diagnosis. Typically found on CT, MRI or ultrasound, is a semilunar-shaped, heterogeneous sub-

or infrascapular, soft tissue mass with attenuation, signal intensity or echogenicity, respectively, of muscle interlaced with strands of fat [1-3,5]. Surgery is the curative therapy in symptomatic patients, while in incidentally discovered cases the pathognomonic imaging features may obviate the need for further intervention.

Radiologists and clinicians should be aware of this rare chest wall pseudotumor. Since thoracic CT is often performed for various clinical indications, the radiologist may be the first physician to diagnose it.



CT of the lower thorax shows a semilunar-shaped mass (M) of soft tissue density with foci of fatty attenuation abutting two left-sided ribs. The serratus anterior muscle is seen antero-laterally to the mass and the tip of the scapula postero-laterally to it. A smaller heterogeneous mass is seen at the same location on the right.

## References

1. Naylor ME, Nascimento AG, Sherrick AD, McLeod RA. Elastofibroma dorsi: radiologic findings in 12 patients. *AJR* 1996; 167:683-7.
2. Brandser EA, Goree JC, El-Khoury GY. Elastofibroma dorsi: prevalence in an elderly population as revealed by CT. *AJR* 1998;171:977-80.
3. Bui-Mansfeld LT, Chew FS, Atanton CA. Elastofibroma dorsi of the chest wall. *AJR* 2000;175:244.
4. Cohen I, Kolender Y, Isacov J, Checkick A, Meller Y. Elastofibroma, a rare cause of snapping scapular syndrome. *Harefuah* 1999;137:287-90 (Hebrew).
5. Bianchi S, Martinoli C, Abdelwahab IF, Gandolfo N, Derchi LE, Damiani S. Elastofibroma dorsi: sonographic findings. *AJR* 1997;169:1113-15.

**Correspondence:** Dr. R. Zissin, Dept. of Diagnostic Imaging, Sapir Medical Center, Kfar Saba 44281, Israel. Phone: (972-9) 747-2449, Fax: (972-9) 746-1465, email: havah@clalit.org.il